Amendments to the Specification

Page 45: please replace the paragraph beginning at line 3 (corresponding to paragraph [0151] of the published application) with the following amended paragraph:

According to the present invention, operations are performed to reduce (i.e., contract) the compound space by classifying all test compounds in the space as a single candidate compound based on a shared global parameter(s) (i.e., a whole molecule parameter), Block **602.** The group of compounds sharing common global characteristics is termed "compound isomers". For example, all peptides with the same amino acid composition (i.e., have the same molecular weight) can be grouped as a respective candidate compound. As a further alternative, all peptides having the same chemical formula can be grouped as a single candidate compound (will include peptides with different amino acid sequences, e.g., SVVVV (SEQ ID NO:48) and GIILS (SEQ ID NO:49), $C_{23}H_{43}N_5O_7$).

Page 46: please replace the paragraph beginning at line 11 (corresponding to paragraph [0156] of the published application) with the following amended paragraph:

The foregoing aspect of the invention can be illustrated using the following simplified example with model data. The present invention may be used to evaluate a peptide space containing all possible peptide tetramers containing the amino acids A and/or C. There are sixteen possible tetramers, such as AAAA (SEQ ID NO: 32), AAAC (SEQ ID NO: 33), AACA (SEQ ID NO: 34), ACAA (SEQ ID NO: 35), CAAA (SEQ ID NO: 36), AACC (SEQ ID NO: 37), ACAC (SEQ ID NO: 38), CAAC (SEQ ID NO: 39), ACCA (SEQ ID NO: 40), CACA (SEQ ID NO: 41), CCAA (SEQ ID NO: 42), ACCC (SEQ ID NO: 43), CACC (SEQ ID NO: 44), CCAC (SEQ ID NO: 45), CCCA (SEQ ID NO: 46), CCCC (SEQ ID NO: 47), if only these two amino acids are utilized (Table 10, column 1). The peptide space containing these sixteen compounds may be contracted by grouping those peptides sharing the same chemical formula (i.e., termed "compound isomers") as five candidate compounds (Table 10, column 2), such as AAAA (SEQ ID NO: 32), AAAC (SEQ ID NO: 33), AACC (SEQ ID NO: 37), ACCC (SEQ ID NO: 43), and CCCC (SEQ ID NO: 47). All peptides with this same whole molecule

-20-

characteristic (e.g., chemical formula) are treated as a single peptide (i.e., candidate compound) with the same properties. Using any method known in the art (e.g., a space-filling design), two of the five candidate compounds, such as AAAC (SEQ ID NO: 33) and AACC (SEQ ID NO: 37), may be selected (Table 10, column 3). The two selected candidate compounds may then be re-expanded into the ten individual compound isomers, such as AACA (SEQ ID NO: 34), AACA (SEQ ID NO: 34), ACAA (SEQ ID NO: 35), CAAA (SEQ ID NO: 36), CCAA (SEQ ID NO: 42), ACAC (SEQ ID NO: 38), CAAC (SEQ ID NO: 39), ACCA (SEQ ID NO: 40), CACA (SEQ ID NO: 41), and CCAA (SEQ ID NO: 42), based on their sequence (Table 10, column 4). In the final step, one of the individual compound isomers is selected from each group (for a total of two peptides), such as ACAA (SEQ ID NO: 35) and CAAC (SEQ ID NO: 39), to form the peptide library (Table 10, column 5).

Page 47: please replace Table 10 with the following amended table:

TABLE 10

SEQ ID NO: 32	AAAA (SEQ ID NO: 32)	→ AAAA (SEQ ID NO: 32)		
SEQ ID NO: 33	AAAC (SEQ ID NO: 33)	→ AAAC (SEQ ID NO: 33)	→ AAAC (SEQ ID NO: 33)	→ AACA (SEQ ID NO: 34)
SEQ ID NO: 34	AACA (SEQ ID NO: 34)			AACA (SEQ ID NO: 34)
SEQ ID NO: 35	ACAA (SEQ ID NO: 35)			ACAA (SEQ ID NO: 35) → ACAA (SEQ ID NO: 35)
SEQ ID NO: 36	CAAA (SEQ ID NO: 36)			CAAA (SEQ ID NO: 36)
SEQ ID NO: 37	AACC (SEQ ID NO: 37)	→ AACC (SEQ ID NO: 37)	→ AACC (SEQ ID NO: 37)	→ CCAA (SEQ ID NO: 42)
SEQ ID NO: 38	ACAC (SEQ ID NO: 38)			ACAC (SEQ ID NO: 38)

~~SEQ~~ CAAC (SEQ   CAAC (SEQ   → CAAC (SEQ
~~ID NO:~~ ID NO: 39)   ID NO: 39)   ID NO: 39)
~~39~~
~~SEQ~~ ACCA (SEQ   ACCA (SEQ
~~ID NO:~~ ID NO: 40)   ID NO: 40)
~~40~~
~~SEQ~~ CACA (SEQ   CACA (SEQ
~~ID NO.~~ ID NO: 41)   ID NO: 41)
~~41~~
~~SEQ~~ CCAA (SEQ   CCAA (SEQ
~~ID NO:~~ ID NO: 42)   ID NO: 42)
~~42~~
~~SEQ~~ ACCC (SEQ   → ACCC (SEQ
~~ID NO:~~ ID NO: 43)   ID NO: 43)
~~43~~
~~SEQ~~ CACC (SEQ
~~ID NO:~~ ID NO: 44)
~~44~~
~~SEQ~~ CCAC (SEQ
~~ID NO:~~ ID NO: 45)
~~45~~
~~SEQ~~ CCCA (SEQ
~~ID NO:~~ ID NO: 46)
~~46~~
~~SEQ~~ CCCC (SEQ   → CCCC (SEQ
~~ID NO:~~ ID NO: 47)   ID NO: 47)
~~47~~

-22-